

## **REMARKS**

### **RESPONSE TO "DOUBLE PATENTING"**

On page 2 of the Office Action, the Examiner has rejected claims 1-23 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of United States Patent no. 7,203,226.

On page 3 of the Office Action, the Examiner has provisionally rejected claims 1-23 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of copending United States Patent Application no. 11/984,490.

On page 5 of the Office Action, the Examiner has provisionally rejected claims 1-23 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-42 of copending United States Patent Application no. 10/682,070.

On page 6 of the Office Action, the Examiner has provisionally rejected claims 1-23 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-42 of copending United States Patent Application no. 10/235,959.

Firstly, it is respectfully submitted that United States Patent Application no. 10/682,070 is abandoned, and therefore not copending. As such, it is respectfully submitted that the provisional rejection on the ground of nonstatutory double patenting over claims 1-42 of United States Patent Application no. 10/682,070 is improper. The Examiner is respectfully requested to withdraw this rejection.

Secondly, the Applicant respectfully traverses the double patenting rejection and provisional rejections and submits that claims 1-23 are sufficiently different from the claims of U.S. Patent no. 7,203,226, United States Patent Application no. 11/984,490, and United States Patent Application no. 10/235,959 that the difference therebetween would not have been obvious to a person of ordinary skill in the art.

It is respectfully submitted that the Examiner has not established that the subject matter of claims 1-15 would have been obvious in light of the claims of any of the references cited for double patenting. To begin with, the Examiner has only presented arguments relating to claim 1 of the present application and nowhere addressed the features and scope of claims 2-23 in his rejection and provisional rejections for nonstatutory double patenting.

Regarding claim 1, in the arguments pertaining to U.S. Patent no. 7,203,226, the Examiner alleges that “it is obvious to one skilled in the art at the time of the invention to bypass intervening encoding by enabling means of detecting the type of terminating decoder and selecting the compatible decoder wherein the process of selection is equivalent to the process of bypassing. That is when one decoder is selected the others are naturally bypassed.” Bypassing decoders may be an aspect of TFO, but nowhere does the Examiner address the possibility of the digital signal processors *terminally or non-terminally supporting a subsequent codec-bypass negotiation*. The Examiner did not show that “responsive to the assessment of compatibility being positive, the control entity being operative to self-identify the communication apparatus as a candidate for terminally supporting a subsequent codec-bypass negotiation with the originating entity” and “responsive to the assessment of compatibility being negative, the control entity being operative to self-identify the communication apparatus as a candidate for non-terminally supporting a subsequent codec-bypass negotiation with the originating entity”, recited in claim 1 of the present invention, would be obvious in light of the claims of U.S. Patent no. 7,203,226.

In the arguments pertaining to United States Patent Application no. 11/984,490 and United States Patent Application no. 10/235,959, the Examiner states for each of these references that “the referenced copending application and the instant application are claiming common subject matter, as follows: Methods and apparatus for bypassing codecs in a tandem environment in order to improve signal fidelity.” However, nowhere does the Examiner show how the features of claim 1 are obvious in light of the claims of United States Patent Application no. 11/984,490 and United States Patent Application no. 10/235,959. Specifically, the Examiner has not shown that the above-noted features of “responsive to the assessment of compatibility being positive, the control entity being operative to self-identify the

communication apparatus as a candidate for terminally supporting a subsequent codec-bypass negotiation with the originating entity” and “responsive to the assessment of compatibility being negative, the control entity being operative to self-identify the communication apparatus as a candidate for non-terminally supporting a subsequent codec-bypass negotiation with the originating entity” are taught in the claims of these references or would have been obvious in light of the claims of these references.

Since the Examiner has not shown that all features of claim 1 are either taught or rendered obvious by the claims of the cited references, it is respectfully requested that the rejections and provisional rejections of claim 1 on the grounds of nonstatutory double patenting be withdrawn.

Regarding claims 2-23, the Examiner has nowhere attempted to show that any of the features of these claims would be obvious in light of the claims of the cited references. For this reason alone, it is submitted that the rejection on the grounds of nonstatutory double patenting is improper and cannot stand. Furthermore, it should be appreciated that:

- Claims 2-15 are dependent upon claim 1 and as such incorporate all the features of claim 1 including those that were not shown to be obvious over the claims of the cited references;
- Claims 16-17 comprise language similar to that of claim 1 and are therefore are not objectionable for nonstatutory obviousness-type double patenting for the same reasons as presented above in respect of claim 1;
- Claims 18-21 comprise the additional features of “identifying a target in-path gateway from among the plurality of in-path gateways, the target in-path gateway being the in-path gateway furthest along the path from the first gateway which is characterized by codec-bypass connection compatibility with the first gateway” and “establishing a codec-bypass connection between the first gateway and the target in-path gateway”, which the Examiner has not shown to be obvious in light of the claims of the cited references; and
- Claims 22-23 comprise the additional features of “identifying a first sub-path between the first gateway and a first target in-path gateway from among the plurality of in-path gateways, the first target in-path gateway being the in-path gateway furthest along the

path from the first gateway which is characterized by codec-bypass connection compatibility with the first gateway”, “identifying a second sub-path between the second gateway and a second target in-path gateway from among the plurality of in-path gateways, the second target in-path gateway being the in-path gateway furthest along the path from the second gateway which is characterized by codec-bypass connection compatibility with the second gateway”, “determining the lengths of the first and second sub-paths”, “if the first sub-path is longer than the second sub-path, establishing a codec-bypass connection between the first gateway and the first target gateway”, and “if the second sub-path is longer than the first sub-path, establishing a codec-bypass connection between the second gateway and the second target gateway”, which the Examiner has not shown to be obvious in light of the claims of the cited references.

Therefore, for these additional reasons, it is respectfully requested that the rejections and provisional rejections of claims 2-23 on the grounds of nonstatutory double patenting be withdrawn.

## **RESPONSE TO “DOUBLE PATENTING - STATUTORY”**

On page 8 of the Office Action, the Examiner alleges that “should claims 1-15 be found allowable, claims 18-21 and 22-23 will be objected to under 37 CFR 1.75 as being substantial duplicates thereof.”

Applicant respectfully suggests that the Examiner may have misinterpreted the claims and/or the requirements under 37 CFR 1.75. In the Office Action, the Examiner refers to MPEP § 706.03(k). In this section of the MPEP, it is specifically stated “However, court decisions have confirmed applicant's right to restate (i.e., by plural claiming) the invention in a reasonable number of ways. Indeed, a mere difference in scope between claims has been held to be enough.”

Claims 1-15 are directed to a communication apparatus while claims 18-23 are directed to methods. On this basis alone, claims 18-23 cannot be held to be identical in scope to claims 1-15 or “so close in content that they both cover the same thing”. Furthermore, the subject-matter of claims 1-15, 18-23 is not substantially duplicated since each of these claims recite different method steps or apparatus features.

More specifically, claim 18, upon which claims 19-21 depend, recites:

- identifying a target in-path gateway from among the plurality of in-path gateways, the target in-path gateway being the in-path gateway furthest along the path from the first gateway which is characterized by codec-bypass connection compatibility with the first gateway”, and
- “establishing a codec-bypass connection between the first gateway and the target in-path gateway”.

These features are not recited in claims 1-15.

For its part, claim 22, upon which claim 23 depends, recites several features not recited in claims 1-15, including:

- “identifying a first sub-path between the first gateway and a first target in-path gateway from among the plurality of in-path gateways, the first target in-path gateway being the in-path gateway furthest along the path from the first gateway which is characterized by codec-bypass connection compatibility with the first gateway”,
- “identifying a second sub-path between the second gateway and a second target in-path gateway from among the plurality of in-path gateways, the second target in-path gateway being the in-path gateway furthest along the path from the second gateway which is characterized by codec-bypass connection compatibility with the second gateway”,
- “determining the lengths of the first and second sub-paths”,
- “if the first sub-path is longer than the second sub-path, establishing a codec-bypass connection between the first gateway and the first target gateway”, and
- “if the second sub-path is longer than the first sub-path, establishing a codec-bypass connection between the second gateway and the second target gateway.”

These features are also not recited in claims 1-15.

Thus, claims 18-23 recite different method steps or apparatus features than those recited in claims 1-15. Again this precludes a finding that claims 18-23 are identical in scope to claims 1-15 or “so close in content that they both cover the same thing”.

In light of the foregoing, it is respectfully submitted that any prospective objection of claims 18-23 under 37 CFR 1.75, and any prospective objection or rejection under 35 USC §101, alluded to on page 8 of the Office Action, would be improper. The Examiner is respectfully requested to refrain from making any such objection/rejection.

## **RESPONSE TO “CLAIM REJECTIONS - 35 USC § 102”**

### ***A. Response to Paragraph 15***

On page 15 of the Office Action, claims 1-23 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent no. 6,185,424 (hereinafter referred to as “Pon”). In the rejection of claims 1-23 under 35 U.S.C. § 102(b), the Examiner refers to document ETSI TS 128 062 V4.2.0 (hereinafter referred to as the “NPL document”) to argue that certain features are inherent. Applicant respectfully disagrees, and submits that the aforementioned claims are not anticipated by Pon.

#### **Claim 1**

Claim 1 is reproduced below for the Examiner’s convenience:

1. A communication apparatus, comprising:
  - a first interface for exchanging data with a first neighboring entity;
  - a second interface for exchanging data with a second neighboring entity;
  - a memory for storing codec information regarding said communication apparatus;
  - a control entity operative to detect a first message from the first neighboring entity via the first interface, the first message being indicative of codec information regarding an originating entity;
  - responsive to detection of the first message, the control entity being operative to perform an assessment of compatibility between the codec information regarding the originating entity and the codec information regarding said communication apparatus;
  - **responsive to the assessment of compatibility being positive, the control entity being operative to self-identify the communication apparatus as a candidate for terminally supporting a subsequent codec-bypass negotiation with the originating entity;**
  - **responsive to the assessment of compatibility being negative, the control entity being operative to self-identify the communication apparatus as a candidate for non-terminally supporting a subsequent codec-bypass negotiation with the originating entity.**

It is respectfully submitted that Pon does not teach or suggest “responsive to the assessment of compatibility being positive, the control entity being operative to self-identify the communication apparatus as a candidate for terminally supporting a subsequent codec-bypass negotiation with the originating entity” and “responsive to the assessment of compatibility being negative, the control entity being operative to self-identify the communication apparatus as a candidate for non-terminally supporting a subsequent codec-bypass negotiation with the originating entity”.

More specifically, Pon discloses a switch-side (col. 3, ln. 62-67) TFO-enabled system wherein a signal is sent over the network, whether in PCM or codec bypass mode (that is, either not decoded or encoded at the source) at a fixed rate of 64 Kbps in which signalling information is provided (i.e. in-band signalling). Pon describes in detail the signalling protocol with which the two base station ends of the signal communicate and coordinate adherence to TFO or non-TFO modes and the transitions therebetween. The methods involved therein and the apparatus needed at both ends, and their internal functioning is then described. They comprise a controller, a message transmitter and a message receiver. Pon describes the interactions between these components but these appear to be internal interactions, within the digital signal processors to which they belong (see, for example, Figure 2, where each of these components are shown in the digital processors 210 and 211 at both ends of a communication).

Pon provides a way to achieve TFO operation between two end-points (or, more specifically, between the switch-sides of two end points) and is not concerned with achieving codec-bypass operation for only a portion of the overall path of a communication. As such, it is not surprising that Pon is silent on the network components in the network between the two digital signal processor of Pon; in fact, no in-path (“non-terminal”) gateway appears to be discussed in Pon.

As can be appreciated, the possibility of the digital signal processors *terminally or non-terminally supporting a subsequent codec-bypass negotiation* is not addressed in Pon, since Pon is not concerned with achieving codec-bypass for less than the overall path of the communication and does not even consider non-terminal gateways. With respect, the



Examiner's contrary assertion on page 9 of the Office Action, ostensibly based on col. 2, ln. 16-27 of Pon, is quite simply incorrect.

Thus, it is respectfully submitted that Pon does not teach or suggest "responsive to the assessment of compatibility being positive, the control entity being operative to self-identify the communication apparatus as a candidate for terminally supporting a subsequent codec-bypass negotiation with the originating entity" and "responsive to the assessment of compatibility being negative, the control entity being operative to self-identify the communication apparatus as a candidate for non-terminally supporting a subsequent codec-bypass negotiation with the originating entity". As such, Pon fails to disclose all the elements of claim 1 and therefore does not anticipate claim 1. The Examiner is therefore respectfully requested to withdraw the rejection of claim 1.

It is also noted that the NPL document also fails to teach "responsive to the assessment of compatibility being positive, the control entity being operative to self-identify the communication apparatus as a candidate for terminally supporting a subsequent codec-bypass negotiation with the originating entity" and "responsive to the assessment of compatibility being negative, the control entity being operative to self-identify the communication apparatus as a candidate for non-terminally supporting a subsequent codec-bypass negotiation with the originating entity".

In particular, the NPL document discloses the principles of operation of a TFO protocol but here too, the document is not concerned with codec-bypass over less than the overall path length and is generally silent on non-terminating gateways. See for example, page 15, lines 1-11, where the services provided by the disclosed protocol are listed and do not include support for codec-bypass to non-terminating gateways or anything else that would suggest or provide a device self-identifying as a candidate for terminally or non-terminally supporting a codec-bypass negotiation. See also Figures 4.2-1 to 4.2-4 that appear conspicuously free of non-terminal gateways.

It should thus be appreciated that the NPL document also fails to teach the above-emphasized features of claim 1.

### Claims 16 and 17

These claims include language similar to that of claim 1 and therefore it is respectfully submitted that claims 16 and 17 also include at least one feature not taught by Pon. As such, claims 16 and 17 are not anticipated by Pon for the same reasons as those set forth above in respect of claim 1 and the Examiner is therefore respectfully requested to withdraw the rejection of claims 16 and 17.

### Claims 2-15

It is noted that claims 2-15 depend from claim 1 and, as such, incorporate by reference all the features contained therein, including at least one feature shown above as not having been taught by Pon, as well as additional features that further distinguish the claimed invention over Pon. It is therefore respectfully submitted that claims 2-15 are not anticipated by Pon and the Examiner is respectfully requested to withdraw the rejection of claims 2-15.

### Claim 18

Claim 18 is reproduced below for the Examiner's convenience:

18. A method of establishing a codec-bypass connection between a first gateway and one of a plurality of in-path gateways located along a path from the first gateway to a second gateway, comprising:
- **identifying a target in-path gateway from among the plurality of in-path gateways, the target in-path gateway being the in-path gateway furthest along the path from the first gateway which is characterized by codec-bypass connection compatibility with the first gateway;**
  - **establishing a codec-bypass connection between the first gateway and the target in-path gateway.**

In the Office Action, the Examiner states that "claims 18-21 and 22-23 are methods claims which read upon claims 1-15 and are substantial duplicates thereof". The Examiner did not

provide any additional basis for a rejection under 35 USC § 102(b) of claims 18-21, and in particular, did not show that the cited reference teaches all the elements of claim 18.

Yet claims 18-21 and 22-23 are not substantial duplicates of claims 1-15. In particular, concerning claim 18, this claim recites at least one feature not taught in claims 1-15, namely “identifying a target in-path gateway from among the plurality of in-path gateways, the target in-path gateway being the in-path gateway furthest along the path from the first gateway which is characterized by codec-bypass connection compatibility with the first gateway” and “establishing a codec-bypass connection between the first gateway and the target in-path gateway”. These features were not addressed by the Examiner at all, and the Examiner failed to show that these features are disclosed by the cited art. For this reason alone, it is respectfully submitted that the rejection under 35 USC § 102(b) is improper and cannot stand.

Furthermore, it is respectfully submitted that these features are not disclosed in Pon or the NPL document. As discussed above in the discussion pertaining to claim 1, neither Pon nor the NPL document discuss in-path (non-terminal) gateways. It therefore follows that neither disclose “identifying a target in-path gateway from among the plurality of in-path gateways, the target in-path gateway being the in-path gateway furthest along the path from the first gateway which is characterized by codec-bypass connection compatibility with the first gateway” or “establishing a codec-bypass connection between the first gateway and the target in-path gateway”. As such, Pon fails to disclose all the elements of claim 18 and therefore does not anticipate claim 18. The Examiner is therefore respectfully requested to withdraw the rejection of claim 18.

#### Claims 19-21

It is noted that claims 19-21 depend from claim 18 and, as such, incorporate by reference all the features contained therein, including at least one feature shown above as not having been taught by Pon, as well as additional features that further distinguish the claimed invention over Pon. It is therefore respectfully submitted that claims 19-21 are not anticipated by Pon and the Examiner is respectfully requested to withdraw the rejection of claims 19-21.

Claim 22

Claim 22 is reproduced below for the Examiner's convenience:

22. A method of establishing a codec-bypass connection along a path between a first gateway and a second gateway, the path comprising a plurality of in-path gateways, comprising:
- **identifying a first sub-path between the first gateway and a first target in-path gateway from among the plurality of in-path gateways, the first target in-path gateway being the in-path gateway furthest along the path from the first gateway which is characterized by codec-bypass connection compatibility with the first gateway;**
  - **identifying a second sub-path between the second gateway and a second target in-path gateway from among the plurality of in-path gateways, the second target in-path gateway being the in-path gateway furthest along the path from the second gateway which is characterized by codec-bypass connection compatibility with the second gateway;**
  - **determining the lengths of the first and second sub-paths;**
  - **if the first sub-path is longer than the second sub-path, establishing a codec-bypass connection between the first gateway and the first target gateway;**
  - **if the second sub-path is longer than the first sub-path, establishing a codec-bypass connection between the second gateway and the second target gateway.**

In the Office Action, the Examiner states that "claims 18-21 and 22-23 are methods claims which read upon claims 1-15 and are substantial duplicates thereof". The Examiner did not provide any additional basis for a rejection under 35 USC § 102(b) of claims 22-23, and in particular, did not show that the cited reference teaches all the elements of claim 22.

Yet claims 18-21 and 22-23 are not substantial duplicates of claims 1-15. In particular, concerning claim 22, this claim recites at least one feature not taught in claims 1-15, namely "identifying a first sub-path between the first gateway and a first target in-path gateway from among the plurality of in-path gateways, the first target in-path gateway being the in-path gateway furthest along the path from the first gateway which is characterized by codec-bypass connection compatibility with the first gateway", "identifying a second sub-path between the second gateway and a second target in-path gateway from among the plurality of in-path gateways, the second target in-path gateway being the in-path gateway furthest along the path

from the second gateway which is characterized by codec-bypass connection compatibility with the second gateway”, “determining the lengths of the first and second sub-paths”, “if the first sub-path is longer than the second sub-path, establishing a codec-bypass connection between the first gateway and the first target gateway”, and “if the second sub-path is longer than the first sub-path, establishing a codec-bypass connection between the second gateway and the second target gateway.” These features were not addressed by the Examiner at all, and the Examiner failed to show that these features are disclosed by the cited art. For this reason alone, it is respectfully submitted that the rejection under 35 USC § 102(b) is improper and cannot stand.

Furthermore, it is respectfully submitted that these features are not disclosed in Pon or the NPL document. As discussed above in the discussion pertaining to claim 1, neither Pon nor the NPL document discuss in-path (non-terminal) gateways. As such, Pon and the NPL document also fail to discuss sub-paths between gateways. It therefore follows that neither disclose any of the above-emphasized limitations. As such, Pon fails to disclose all the elements of claim 1 and therefore does not anticipate claim 19. The Examiner is therefore respectfully requested to withdraw the rejection of claim 19.

#### Claim 23

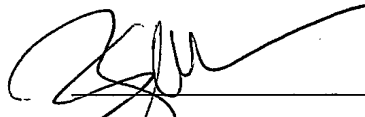
It is noted that claim 23 depends from claim 22 and, as such, incorporate by reference all the features contained therein, including at least one feature shown above as not having been taught by Pon, as well as additional features that further distinguish the claimed invention over Pon. It is therefore respectfully submitted that claim 23 is not anticipated by Pon and the Examiner is respectfully requested to withdraw the rejection of claim 23.

### CONCLUSION

In view of the foregoing, Applicant is of the view that claims 1-23 are in allowable form. Favourable reconsideration and withdrawal of all rejections is respectfully requested. Early allowance of the Application is earnestly solicited.

If the application is not considered to be in full condition for allowance, for any reason, Applicant respectfully requests the constructive assistance and suggestions of the Examiner for placing the application in allowable condition as soon as possible and without the need for further proceedings.

Respectfully submitted,

  
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